

# SEARCH NOTES 10/700,838

Royds

01/24/2005

=> d que 131

L1 4 SEA FILE=REGISTRY ABB=ON PLU=ON PIOGLITAZONE?/CN  
 L2 3 SEA FILE=REGISTRY ABB=ON PLU=ON ZAFIRLUKAST?/CN  
 L3 0 SEA FILE=REGISTRY ABB=ON PLU=ON SIMIVASTATIN?/CN  
 L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON ZOCOR/CN  
 L5 7 SEA FILE=REGISTRY ABB=ON PLU=ON SIMVASTATIN?/CN  
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON LIPITOR/CN  
 L7 7 SEA FILE=REGISTRY ABB=ON PLU=ON ATORVASTATIN?/CN  
 L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON FENOFIBR?/CN  
 L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON CILOSTAZOL?  
 L11 24 SEA FILE=REGISTRY ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4 OR L5  
 OR L6 OR L7 OR L8 OR L9)  
 L14 3015 SEA FILE=HCAPLUS ABB=ON PLU=ON SOLUBILIZERS+PFT,NT/CT  
 L15 8725 SEA FILE=HCAPLUS ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS (L)  
 SUSTAINED-RELEASE"+PFT,OLD/CT  
 L27 78 SEA FILE=REGISTRY ABB=ON PLU=ON (107753-78-6/CRN OR 111025-46  
 -8/CRN OR 112529-15-4/CRN OR 121009-77-6/CRN OR 125995-03-1/CRN  
 OR 134523-00-5/CRN OR 134523-01-6/CRN OR 134523-02-7/CRN OR  
 134523-03-8/CRN OR 139893-43-9/CRN OR 145350-09-0/CRN OR  
 151006-18-7/CRN OR 262291-01-0/CRN OR 262291-02-1/CRN OR  
 340266-37-7/CRN OR 344423-98-9/CRN OR 414355-31-0/CRN OR  
 42017-89-0/CRN OR 424787-67-7/CRN OR 468728-50-9/CRN OR  
 49562-28-9/CRN OR 618116-61-3/CRN OR 73963-72-1/CRN OR  
 79902-63-9/CRN)  
 L28 89 SEA FILE=REGISTRY ABB=ON PLU=ON L27 OR L11  
 L30 4249 SEA FILE=HCAPLUS ABB=ON PLU=ON L28(L) (BAC OR DMA OR PAC OR  
 PKT OR THU)/RL  
 L31 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND (L14 OR SOLUBILIZ?)  
 AND (L15 OR (SUSTAIN? OR EXTEND?) (3A)RELEAS?)

=> d 131 ibib abs hitind 1-5

L31 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:675655 HCAPLUS  
 DOCUMENT NUMBER: 141:195290  
 TITLE: Dual release antidiabetic drugs  
 INVENTOR(S): Thembalath, Ramachandran; Bansal, Yatish Kumar; Tawde,  
 Vaishali Manish; Jadhav, Vivek Kamalakar  
 PATENT ASSIGNEE(S): Ipca Laboratories Limited, India  
 SOURCE: PCT Int. Appl., 38 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004069229	A1	20040819	WO 2003-IN313	20030917
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,				

=> d que 149

L1 4 SEA FILE=REGISTRY ABB=ON PLU=ON PIOGLITAZONE?/CN  
L2 3 SEA FILE=REGISTRY ABB=ON PLU=ON ZAFIRLUKAST?/CN  
L3 0 SEA FILE=REGISTRY ABB=ON PLU=ON SIMIVASTATIN?/CN  
L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON ZOCOR/CN  
L5 7 SEA FILE=REGISTRY ABB=ON PLU=ON SIMVASTATIN?/CN  
L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON LIPITOR/CN  
L7 7 SEA FILE=REGISTRY ABB=ON PLU=ON ATORVASTATIN?/CN  
L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON FENOFIBR?/CN  
L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON CILOSTAZOL?  
L11 24 SEA FILE=REGISTRY ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4 OR L5  
OR L6 OR L7 OR L8 OR L9)  
L12 5280 SEA FILE=HCAPLUS ABB=ON PLU=ON L11  
L14 3015 SEA FILE=HCAPLUS ABB=ON PLU=ON SOLUBILIZERS+PFT,NT/CT  
L15 8725 SEA FILE=HCAPLUS ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS (L)  
SUSTAINED-RELEASE"+PFT,OLD/CT  
L17 54 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND L15  
L27 78 SEA FILE=REGISTRY ABB=ON PLU=ON (107753-78-6/CRN OR 111025-46  
-8/CRN OR 112529-15-4/CRN OR 121009-77-6/CRN OR 125995-03-1/CRN  
OR 134523-00-5/CRN OR 134523-01-6/CRN OR 134523-02-7/CRN OR  
134523-03-8/CRN OR 139893-43-9/CRN OR 145350-09-0/CRN OR  
151006-18-7/CRN OR 262291-01-0/CRN OR 262291-02-1/CRN OR  
340266-37-7/CRN OR 344423-98-9/CRN OR 414355-31-0/CRN OR  
42017-89-0/CRN OR 424787-67-7/CRN OR 468728-50-9/CRN OR  
49562-28-9/CRN OR 618116-61-3/CRN OR 73963-72-1/CRN OR  
79902-63-9/CRN)  
L28 89 SEA FILE=REGISTRY ABB=ON PLU=ON L27 OR L11  
L30 4249 SEA FILE=HCAPLUS ABB=ON PLU=ON L28(L) (BAC OR DMA OR PAC OR  
PKT OR THU)/RL  
L31 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND (L14 OR SOLUBILIZ?)  
AND (L15 OR (SUSTAIN? OR EXTEND?) (3A) RELEAS?)  
L39 26 SEA FILE=REGISTRY ABB=ON PLU=ON POLYOXYETHYLENE-POLYOXYPROPYL  
ENE?/CN  
L40 207 SEA FILE=REGISTRY ABB=ON PLU=ON CYCLODEXTRIN?/CN  
L41 21 SEA FILE=REGISTRY ABB=ON PLU=ON TOCOL?  
L42 372 SEA FILE=REGISTRY ABB=ON PLU=ON "TOCOPHEROL"  
L43 47020 SEA FILE=HCAPLUS ABB=ON PLU=ON (L39 OR L40 OR L41 OR L42)  
L44 350120 SEA FILE=HCAPLUS ABB=ON PLU=ON FATTY ACIDS+PFT,NT/CT  
L45 24013 SEA FILE=HCAPLUS ABB=ON PLU=ON FATTY ACIDS/CT(L) ESTER  
L46 350120 SEA FILE=HCAPLUS ABB=ON PLU=ON L44 OR L45  
L47 390009 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 OR L46  
L48 27 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND L47 AND (L15 OR  
(SUSTAIN? OR EXTEND? OR DELAY?) (3A) RELEAS? OR SYNCH?)  
L49 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 NOT (L17 OR L31)

=> d 149 ibib abs hitind 1-9

L49 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:453026 HCAPLUS

DOCUMENT NUMBER: 141:12310

TITLE: Pharmaceutical compositions containing a  
biguanide-glitzone combination

INVENTOR(S): Trehan, Anupam; Madan, Sumit; Arora, Vinod Kumar;  
Malik, Rajiv

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 47 pp.

CODEN: PIXXD2

=&gt; d que 123

L1 4 SEA FILE=REGISTRY ABB=ON PLU=ON PIOGLITAZONE?/CN  
 L2 3 SEA FILE=REGISTRY ABB=ON PLU=ON ZAFIRLUKAST?/CN  
 L3 0 SEA FILE=REGISTRY ABB=ON PLU=ON SIMIVASTATIN?/CN  
 L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON ZOCOR/CN  
 L5 7 SEA FILE=REGISTRY ABB=ON PLU=ON SIMVASTATIN?/CN  
 L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON LIPITOR/CN  
 L7 7 SEA FILE=REGISTRY ABB=ON PLU=ON ATORVASTATIN?/CN  
 L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON FENOFIBR?/CN  
 L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON CILOSTAZOL?  
 L11 24 SEA FILE=REGISTRY ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4 OR L5  
 OR L6 OR L7 OR L8 OR L9)  
 L12 5280 SEA FILE=HCAPLUS ABB=ON PLU=ON L11  
 L13 4248 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 (L) (BAC OR DMA OR PAC OR  
 PKT OR THU)/RL  
 L14 3015 SEA FILE=HCAPLUS ABB=ON PLU=ON SOLUBILIZERS+PFT,NT/CT  
 L15 8725 SEA FILE=HCAPLUS ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS (L)  
 SUSTAINED-RELEASE"+PFT,OLD/CT  
 L16 48 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L13  
 L17 54 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND L15  
 L18 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND L14  
 L19 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND L15  
 L22 48 SEA FILE=HCAPLUS ABB=ON PLU=ON L16 OR L19  
 L23 54 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 OR L22

=&gt; d 123 ibib abs.hitind 1-54

L23 ANSWER 1 OF 54 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:1156434 HCAPLUS

 TITLE: Method and compositions for modulating amyloid  
 precursor protein translation with dimercaptopropanol  
 and other compounds

 INVENTOR(S): Rogers, Jack; Payton, Sandra; Gullans, Steve; Randall,  
 Jeff; Sarang, Satinder

 PATENT ASSIGNEE(S): The General Hospital Corporation, USA; The Brigham and  
 Women's Hospital, Inc.

SOURCE: PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004112700	A2	20041229	WO 2004-US18158	20040607
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

=> dup rem l38 l61

FILE 'MEDLINE' ENTERED AT 12:29:29 ON 24 JAN 2005

FILE 'EMBASE' ENTERED AT 12:29:29 ON 24 JAN 2005

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PROCESSING COMPLETED FOR L38

PROCESSING COMPLETED FOR L61

L62 30 DUP REM L38 L61 (0 DUPLICATES REMOVED)  
ANSWERS '1-11' FROM FILE MEDLINE  
ANSWERS '12-30' FROM FILE EMBASE

=> d que l62

L1 4 SEA FILE=REGISTRY ABB=ON PLU=ON PIOGLITAZONE?/CN  
L2 3 SEA FILE=REGISTRY ABB=ON PLU=ON ZAFIRLUKAST?/CN  
L3 0 SEA FILE=REGISTRY ABB=ON PLU=ON SIMIVASTATIN?/CN  
L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON ZOCOR/CN  
L5 7 SEA FILE=REGISTRY ABB=ON PLU=ON SIMVASTATIN?/CN  
L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON LIPITOR/CN  
L7 7 SEA FILE=REGISTRY ABB=ON PLU=ON ATORVASTATIN?/CN  
L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON FENOFIBR?/CN  
L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON CILOSTAZOL?  
L11 24 SEA FILE=REGISTRY ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4 OR L5  
OR L6 OR L7 OR L8 OR L9)  
L27 78 SEA FILE=REGISTRY ABB=ON PLU=ON (107753-78-6/CRN OR 111025-46  
-8/CRN OR 112529-15-4/CRN OR 121009-77-6/CRN OR 125995-03-1/CRN  
OR 134523-00-5/CRN OR 134523-01-6/CRN OR 134523-02-7/CRN OR  
134523-03-8/CRN OR 139893-43-9/CRN OR 145350-09-0/CRN OR  
151006-18-7/CRN OR 262291-01-0/CRN OR 262291-02-1/CRN OR  
340266-37-7/CRN OR 344423-98-9/CRN OR 414355-31-0/CRN OR  
42017-89-0/CRN OR 424787-67-7/CRN OR 468728-50-9/CRN OR  
49562-28-9/CRN OR 618116-61-3/CRN OR 73963-72-1/CRN OR  
79902-63-9/CRN)  
L28 89 SEA FILE=REGISTRY ABB=ON PLU=ON L27 OR L11  
L34 4163 SEA FILE=MEDLINE ABB=ON PLU=ON L28  
L35 22046 SEA FILE=MEDLINE ABB=ON PLU=ON DELAYED-ACTION PREPARATIONS+PF  
T,NT/CT  
L36 11 SEA FILE=MEDLINE ABB=ON PLU=ON L34 AND L35  
L37 1 SEA FILE=MEDLINE ABB=ON PLU=ON L36 AND SOLUB?  
L38 11 SEA FILE=MEDLINE ABB=ON PLU=ON L36 OR L37  
L39 26 SEA FILE=REGISTRY ABB=ON PLU=ON POLYOXYETHYLENE-POLYOXYPROPYL  
ENE?/CN  
L40 207 SEA FILE=REGISTRY ABB=ON PLU=ON CYCLODEXTRIN?/CN  
L41 21 SEA FILE=REGISTRY ABB=ON PLU=ON TOCOL?  
L42 372 SEA FILE=REGISTRY ABB=ON PLU=ON "TOCOPHEROL"  
L50 15019 SEA FILE=EMBASE ABB=ON PLU=ON L28  
L51 661 SEA FILE=EMBASE ABB=ON PLU=ON SUSTAINED RELEASE FORMULATION/C  
T  
L52 774 SEA FILE=EMBASE ABB=ON PLU=ON SUSTAINED DRUG RELEASE/CT  
L53 14338 SEA FILE=EMBASE ABB=ON PLU=ON SUSTAINED RELEASE PREPARATION+N  
T/CT  
L54 10 SEA FILE=EMBASE ABB=ON PLU=ON EXTENDED RELEASE FORMULATION/CT  
L56 160 SEA FILE=EMBASE ABB=ON PLU=ON L50 AND (L51 OR L52 OR L53 OR  
L54 OR (SUSTAIN? OR EXTEND? OR DELAY?) (3A)RELEAS? OR SYNCH?)  
L57 32006 SEA FILE=EMBASE ABB=ON PLU=ON (L39 OR L40 OR L41 OR L42)  
L58 7778 SEA FILE=EMBASE ABB=ON PLU=ON SOLUBILIZER+NT/CT  
L59 190527 SEA FILE=EMBASE ABB=ON PLU=ON FATTY ACID+NT/CT  
L60 8320 SEA FILE=EMBASE ABB=ON PLU=ON FATTY ACID ESTER+NT/CT

L61 19 SEA FILE=EMBASE ABB=ON PLU=ON L56 AND (L57 OR L58 OR L59 OR  
L60 OR SOLUBILIZ?)  
L62 30 DUP REM L38 L61 (0 DUPLICATES REMOVED)

=> d l62 ibib abs hitind 1-30

L62 ANSWER 1 OF 30 MEDLINE on STN  
ACCESSION NUMBER: 2004182731 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 15078639  
TITLE: New perspectives on the use of niacin in the treatment of  
lipid disorders.  
AUTHOR: McKenney James  
CORPORATE SOURCE: National Clinical Research and Virginia Commonwealth  
University, Richmond, USA.. jmckenney@ncrinc.net  
SOURCE: Archives of internal medicine, (2004 Apr 12) 164 (7)  
697-705. Ref: 83  
Journal code: 0372440. ISSN: 0003-9926.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LANGUAGE: English  
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 200405  
ENTRY DATE: Entered STN: 20040414  
Last Updated on STN: 20040528  
Entered Medline: 20040527

AB Therapy with niacin (nicotinic acid) is unique in that it improves all  
lipoprotein abnormalities. It significantly reduces low-density  
lipoprotein cholesterol, triglyceride, and lipoprotein(a) levels, while  
increasing high-density lipoprotein cholesterol levels. This makes niacin  
ideal for treating a wide variety of lipid disorders, including the  
metabolic syndrome, diabetes mellitus, isolated low high-density  
lipoprotein cholesterol, and hypertriglyceridemia. Niacin-induced changes  
in serum lipid levels produce significant improvements in both coronary  
artery disease and clinical outcomes. Niacin is currently available in 3  
formulations (immediate release, extended release, and long acting), which  
differ significantly with respect to their safety and efficacy profiles.  
Immediate-release niacin is generally taken 3 times a day and is  
associated with adverse flushing, gastrointestinal symptoms, and  
elevations in blood glucose levels. Long-acting niacin can be taken once  
daily and is associated with significantly reduced flushing, but its  
metabolism increases the risk of hepatotoxic effects. Extended-release  
niacin, also given once daily, has an absorption rate intermediate between  
the other formulations and is associated with fewer flushing and  
gastrointestinal symptoms without increasing hepatotoxic risk.

CT Check Tags: Human  
Antilipemic Agents: AE, adverse effects  
Antilipemic Agents: PD, pharmacology  
\*Antilipemic Agents: TU, therapeutic use  
Delayed-Action Preparations  
Dose-Response Relationship, Drug  
Drug Therapy, Combination  
Hyperlipidemia: CO, complications  
\*Hyperlipidemia: DT, drug therapy  
Lipoproteins, HDL Cholesterol: DE, drug effects  
Lipoproteins, LDL Cholesterol: DE, drug effects  
Niacin: AE, adverse effects

# Inventor Search

Royds

01/24/2005

L12 ANSWER 1 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:1094190 HCAPLUS  
 ENTRY DATE: Entered STN: 21 Dec 2004  
 TITLE: Fatty acid esters of lactic acid salts as permeation enhancers  
 INVENTOR(S): Fikstad, David; Venkateshwaran, Srinivasan  
 PATENT ASSIGNEE(S): Theratech Inc., USA  
 SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given  
 CODEN: KRXXA7  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Korean  
 INT. PATENT CLASSIF.: A61F013-02  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2000035801	A	20000626	KR 1999-701409	19990222
CA 2263300	AA	19980507	CA 1997-2263300	19971029
CA 2263334	AA	19980507	CA 1997-2263334	19971029
JP 2001503062	T2	20010306	JP 1998-520767	19971029
JP 2001503749	T2	20010321	JP 1998-520721	19971029
KR 2000035800	A	20000626	KR 1999-701408	19990222
PRIORITY APPLN. INFO.:			US 1996-741071	A 19961030
			WO 1997-US19600	W 19971029
			WO 1997-US19731	W 19971029

## PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
KR 2000035801	IC	A61F013-02

## ABSTRACT:

PURPOSE: A composition containing, as a permeation enhancer, one or more C5 to C21 fatty acid esters of a lactic acid salt is provided which enhances the delivery of the drug in a transdermal drug delivery system. CONSTITUTION: These compositions are made up of a safe and effective amount of an active pharmaceutical per meant contained in a penetration-enhancing vehicle comprising 0.25 to 50wt.% of the fatty acid ester of a lactic acid salt enhancer in a suitable pressure sensitive adhesive carrier vehicle formed from an aqueous emulsion based pressure sensitive adhesive.

L12 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:490278 HCAPLUS  
 DOCUMENT NUMBER: 141:42922  
 ENTRY DATE: Entered STN: 17 Jun 2004  
 TITLE: Hydrophobic active agent compositions and methods  
 INVENTOR(S): Chen, Feng-Jing; Gutke, Kathryn; Venkateshwaran, Srinivasan; Patel, Mahesh V.  
 PATENT ASSIGNEE(S): Lipocine, Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 27 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 INT. PATENT CLASSIF.:  
 MAIN: A61K038-13  
 SECONDARY: A61K035-78

1/2005

Royds PCT/US04/36713

01/24/2005

INDEX TERM:

(pharmaceutical dispersions containing hydrophobic drug and solubilizer and stabilizer)  
52-01-7, Spironolactone 57-83-0, Progesterone, biological studies 64-17-5, Ethanol, biological studies 99-66-1, Valproic acid 1665-48-1, Metaxalone 1951-25-3, Amiodarone 1972-08-3, Dronabinol 49562-28-9, Fenofibrate 53123-88-9, Sirolimus 59865-13-3, Cyclosporine 63612-50-0, Nilutamide 63798-73-2, Cyclosporine 73963-72-1, Cilostazol 83366-66-9, Nefazodone 90357-06-5, Bicalutamide 104987-11-3, Tacrolimus 118292-40-3, Tazarotene 127779-20-8, Saquinavir 134523-00-5, Atorvastatin 164656-23-9, Dutasteride 169590-42-5, Celecoxib  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES

(pharmaceutical dispersions containing hydrophobic drug and solubilizer and stabilizer)

L12 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2003:1007852 HCAPLUS  
DOCUMENT NUMBER: 140;47560  
ENTRY DATE: Entered STN: 28 Dec 2003  
TITLE: Pharmaceutical compositions and dosage forms for administration of hydrophobic drugs  
INVENTOR(S): Chen, Feng-Jing; Patel, Mahesh V.; Fikstad, David T.; Zhang, Huiping; Gilyar, Chandrashekar  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U.S. Pat. Appl. 2002 32,171.  
DOCUMENT TYPE: CODEN: USXXCO  
LANGUAGE: Patent  
INT. PATENT CLASSIF.: English  
MAIN: A61K031-56  
SECONDARY: A61K031-355; A61K031-122  
US PATENT CLASSIF.: 514171000; 514458000; 514682000  
CLASSIFICATION: 63-6 (Pharmaceuticals)  
FAMILY ACC. NUM. COUNT: 12  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003236236	A1	20031225	US 2003-444935	20030522
US 6267985	B1	20010731	US 1999-345615	19990630
US 6309663	B1	20011030	US 1999-375636	19990817
US 2001024658	A1	20010927	US 2000-751968	20001229
US 6458383	B2	20021001		
US 2002032171	A1	20020314	US 2001-877541	20010608
US 6761903	B2	20040713		
WO 2004105694	A2	20041209	WO 2004-US16286	20040524
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,				

24/2005

Royds PCT/US04/36713

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INDEX TERM: bioavailability)  
Drug delivery systems  
(oral; pharmaceutical compns. containing hydrophobic drugs  
and solubilizers for enhancement of bioavailability)

INDEX TERM: Drug bioavailability  
Surfactants  
(pharmaceutical compns. containing hydrophobic drugs and  
solubilizers for enhancement of bioavailability)

INDEX TERM: Steroids, biological studies  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(pharmaceutical compns. containing hydrophobic drugs and  
solubilizers for enhancement of bioavailability)

INDEX TERM: 52-01-7, Spironolactone 53-43-0, Dehydroepiandrosterone  
57-83-0, Progesterone, biological studies 58-22-0,  
Testosterone 58-95-7,  $\alpha$ -Tocopherol acetate  
59-02-9,  $\alpha$ -Tocopherol 303-98-0, Coenzyme Q10.  
1323-83-7, Glycerol distearate 1665-48-1, Metaxalone  
4345-03-3,  $\alpha$ -Tocopherol succinate 9002-96-4,  
 $\alpha$ -Tocopherol polyethylene glycol succinate  
9005-65-6, Polysorbate 80 26545-74-4, Glycerol  
monolinoleate 31565-12-5, Propylene glycol monocaprylate  
49562-28-9, Fenofibrate 58186-27-9, Idebenone  
79902-63-9, Simvastatin 90357-06-5, Bicalutamide  
99880-64-5, Glycerin dibehenate 107724-20-9, Eplerenone  
121548-04-7, Gelucire 44/14 121548-05-8, Gelucire 50/13  
156259-68-6, Capmul MCM 164656-23-9, Dutasteride  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(pharmaceutical compns. containing hydrophobic drugs and  
solubilizers for enhancement of bioavailability)

L12 ANSWER 4 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:1007596 HCAPLUS  
DOCUMENT NUMBER: 140:65183  
ENTRY DATE: Entered STN: 28 Dec 2003  
TITLE: Oil-containing, orally administrable pharmaceutical  
composition for improved delivery of a therapeutic  
agent

INVENTOR(S): Chen, Feng-Jing; Patel, Mahesh V.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 39 pp., Cont.-in-part of U.S.  
Pat. Appl. 2002 32,171.  
CODEN: USXXCO

DOCUMENT TYPE: Patent  
LANGUAGE: English

INT. PATENT CLASSIF.:  
MAIN: A61K009-00  
SECONDARY: A61K031-192  
US PATENT CLASSIF.: 424400000; 514571000  
CLASSIFICATION: 63-6 (Pharmaceuticals)  
FAMILY ACC. NUM. COUNT: 12  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003235595	A1	20031225	US 2003-397969	20030325
US 6267985	B1	20010731	US 1999-345615	19990630
US 6309663	B1	20011030	US 1999-375636	19990817



## INDEX TERM:

(inhibitors; oral composition containing triglyceride and surfactants for improved delivery of hydrophobic drugs)  
57-55-6, Propylene glycol, biological studies 57-55-6D, Propylene glycol, di-C8-10 esters 57-55-6D, Propylene glycol, fatty acid esters 59-67-6, Nicotinic acid, biological studies 64-17-5, Ethanol, biological studies 102-76-1, Triacetin 637-07-0, Clofibrate 1338-39-2, Span 20 1400-61-9, Nystatin 5868-05-3, Niceritrol 9002-92-0, Brij 30 9002-96-4,  $\alpha$ -Tocopheryl polyethylene glycol succinate 9004-96-0, Kessco PEG 400MO 9005-64-5, Tween 20 9005-65-6, Tween 80 11140-04-8, Imwitor 988 14929-11-4, Simfibrate 23288-49-5, Probucol 25496-72-4, Glyceryl monooleate 25637-84-7, Glyceryl dioleate 25812-30-0, Gemfibrozil 26545-74-4, Glyceryl linoleate 27959-26-8, Nicomol 30299-08-2, Clinofibrate 31565-12-5, Propylene glycol monocaprylate 31637-97-5, Etofibrate 31980-29-7, Nicofibrate 37220-82-9, Peceol 37321-62-3, Lauroglycol FCC 41859-67-0, Bezafibrate 42597-57-9, Ronifibrate 49562-28-9, Fenofibrate 52214-84-3, Ciprofibrate 53168-42-6, Myvacet 9-45 54504-70-0, Theofibrate 55285-45-5, Pirifibrate 55937-99-0, Beclobrate 69047-39-8, Binifibrate 73573-88-3, Mevastatin 75330-75-5, Lovastatin 79902-63-9, Simvastatin 80449-31-6, Urinastatin 81093-37-0, Pravastatin 93957-54-1, Fluvastatin 93957-55-2, Fluindostatin 134523-00-5, Atorvastatin 145599-86-6, Cerivastatin 147511-69-1, Pitavastatin 156259-68-6, Capmul MCM 163222-33-1, Ezetimibe 208666-87-9, Captex 810D 287714-41-4, Rosuvastatin 637739-89-0, Captex GTO

ROLE: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(oral composition containing triglyceride and surfactants for improved delivery of hydrophobic drugs)

## INDEX TERM:

42017-89-0, Fenofibric acid

ROLE: BSU (Biological study, unclassified); BIOL (Biological study)

(plasma concentration of; oral composition containing

triglyceride and

surfactants for improved delivery of hydrophobic drugs)

L12 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:757020 HCAPLUS

DOCUMENT NUMBER: 139:281229

ENTRY DATE: Entered STN: 26 Sep 2003

TITLE: Solid carriers for improved delivery of active ingredients in pharmaceutical compositions

INVENTOR(S): Patel, Mahesh V.; Chen, Feng-Jing

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 51 pp., Cont.-in-part of U.S. Ser. No. 800,593.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

INT. PATENT CLASSIF.:

MAIN: A61K031-4439

SECONDARY: A61K009-20

US PATENT CLASSIF.: 424465000; 514338000

1/24/2005

443-48-1, Metronidazole 471-34-1, Calcium carbonate, biological studies 497-19-8, Sodium carbonate, biological studies 541-15-1, Carnitine 546-93-0, Magnesium carbonate 577-11-7, Sodium docusate 1309-42-8, Magnesium hydroxide 1335-71-3, Lutrol OP 2000 2644-64-6, DPPC 7664-93-9D, Sulfuric acid, alkyl esters, salts 9002-96-4, TPGS 9004-96-0, Crodet O-40 9004-99-3, PEG-40 stearate 9005-32-7D, Alginic acid, salts 9005-37-2, Propylene glycol alginate 9005-38-3, Sodium alginate 9005-63-4D, Polyoxyethylene sorbitan, fatty acid esters 10238-21-8, Glyburide 11140-04-8, Imwitor 988 14807-96-6, Talc, biological studies 18656-38-7; DMPC 21256-18-8, Oxaprozin 21645-51-2, Aluminum hydroxide, biological studies 25322-68-3D, alkyl ethers and phenols 25618-55-7D, Polyglycerol, fatty acid esters 26787-78-0, Amoxicillin 27215-38-9 31566-31-1, Imwitor 191 31694-55-0D, Polyoxyethylene glycerol, fatty acid esters 36653-82-4, Cetyl alcohol 37220-82-9, Peceol 37348-65-5, Maisine 35I 47931-85-1, Salmon calcitonin 49562-28-9, Fenofibrate 53123-88-9, Rapamycin 73590-58-6, Omeprazole 75330-75-5, Lovastatin 77538-19-3, Glyceryl behenate 79902-63-9, Simvastatin 81103-11-9, Clarithromycin 82410-32-0, Ganciclovir 84625-61-6, Itraconazole 102625-70-7, Pantoprazole 103577-45-3, Lansoprazole 103628-46-2, Sumatriptan 104987-11-3, Tacrolimus 106392-12-5, Oxyethylene-oxypropylene block copolymer 107753-78-6, Zafirlukast 111025-46-8, Pioglitazone 117976-89-3, Rabeprazole 119141-88-7, Esomeprazole 121548-05-8, Gelucire 50/13 127779-20-8, Saquinavir 127829-97-4, Solulan C-24 129318-43-0, Alendronate sodium 134523-00-5, Atorvastatin 151319-34-5, Zaleplon 156259-68-6, Capmul MCM 162011-90-7, Rofecoxib 169590-42-5, Celecoxib

ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(solid carriers for improved delivery of therapeutic agents)

INDEX TERM: 9003-39-8, Polyvinylpyrrolidone 9004-65-3, Hydroxypropyl methyl cellulose 25322-68-3, Polyethylene glycol  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(solubilizer; solid carriers for improved delivery of therapeutic agents)

INDEX TERM: 57-55-6D, 1,2-Propanediol, ethers with cyclodextrin 12619-70-4D, Cyclodextrin, ethers with propanediol 25322-68-3D, Polyethylene glycol, ethers  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(solubilizers; solid carriers for improved delivery of therapeutic agents)

L12 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:435089 HCAPLUS

DOCUMENT NUMBER: 139:12314

ENTRY DATE: Entered STN: 06 Jun 2003

TITLE: Pharmaceutical dosage forms for highly hydrophilic materials

INVENTOR(S): Patel, Mahesh V.; Chen, Feng-jing;  
Krill, Steven L.; Venkateshvaran, Srinivasan

PATENT ASSIGNEE(S): Lipocine, Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 33 pp., Cont.-in-part of U. S. Ser. No. 898,553.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 INT. PATENT CLASSIF.:  
     MAIN: A61K009-00  
     SECONDARY: A61K009-48  
 US PATENT CLASSIF.: 424451000; 424400000  
 CLASSIFICATION: 63-6 (Pharmaceuticals)  
 FAMILY ACC. NUM. COUNT: 12  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003104048	A1	20030605	US 2002-158206	20020529
US 6294192	B1	20010925	US 1999-258654	19990226
US 6267985	B1	20010731	US 1999-345615	19990630
US 2002032171	A1	20020314	US 2001-877541	20010608
US 6761903	B2	20040713		
US 2002012680	A1	20020131	US 2001-898553	20010702
US 6451339	B2	20020917		
PRIORITY APPLN. INFO.:			US 1999-258654	A1 19990226
			US 1999-345615	A2 19990630
			US 2001-877541	A2 20010608
			US 2001-898553	A2 20010702
			US 1999-375636	A2 19990817
			US 2000-751968	A2 20001229

## PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003104048	ICM	A61K009-00
	ICS	A61K009-48
	NCL	424451000; 424400000
US 2003104048	ECLA	A61K009/107D; A61K031/57+A; A61K038/13; A61K047/26; A61K047/44
US 6294192	ECLA	A61K009/107D; A61K031/57+A; A61K038/13; A61K047/26; A61K047/44
US 6267985	ECLA	A61K009/107D
US 2002032171	ECLA	A61K009/107D; A61K009/48H4; A61K009/48Z
US 2002012680	ECLA	A61K009/107D; A61K031/57+A; A61K038/13; A61K047/26; A61K047/44

## ABSTRACT:

Pharmaceutical dosage forms having a highly hydrophilic fill material and a shell encapsulating the fill material are disclosed and described. Generally, the shell has at least one plasticizing agent therein in order to provide the shell with an effective plasticity. In one aspect, the shell may have included therein an amount of plasticizing agent that is sufficient to provide the shell with an effective plasticity upon migration of a portion of the plasticizing agent into the fill material. In another aspect, the plasticizing agent may have a solubility in the fill material of less than about 10% weight/weight. In yet another aspect, a combination of a plasticizing agent, and a plasticizing agent having a solubility in the fill material of less than about 10% weight/weight, may be presented in a total amount sufficient to provide the shell with an effective plasticity upon migration of plasticizing agent into the fill material. For example, a fill composition containing fenofibrate 12%, Cremophor EL 40%, Labrasol 26%,

TERM: 37348-65-5, Maisine 35I  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(encapsulation of highly hydrophilic fill material containing  
drug and carrier of hydrophilic surfactant)

INDEX TERM: 9004-34-6, Cellulose, biological studies  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(microcryst.; encapsulation of fill material containing drug  
and carrier of hydrophilic surfactant)

INDEX TERM: 50-99-7, D-Glucose, biological studies  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(partially dehydrated hydrogenated syrups; encapsulation  
of fill material containing drug and carrier of hydrophilic  
surfactant)

INDEX TERM: 50-70-4, Sorbitol, biological studies 87-99-0, Xylitol  
585-88-6, Maltitol  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(plasticizer; encapsulation of fill material containing drug  
and carrier of hydrophilic surfactant)

INDEX TERM: 57-55-6D, Propylene glycol, ethers  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(solubilizers; encapsulation of fill material containing drug  
and carrier of hydrophilic surfactant)

L12 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2003:319266 HCAPLUS  
DOCUMENT NUMBER: 138:343857  
ENTRY DATE: Entered STN: 25 Apr 2003  
TITLE: Pharmaceutical formulations and systems for improved  
absorption and multistage release of active agents  
INVENTOR(S): Chen, Feng-Jing; Venkateshwaran,  
Srinivasan; Krill, Steven L.; Patel, Mahesh  
V.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 55 pp., Cont.-in-part of U.S.  
Ser. No. 898,553.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
INT. PATENT CLASSIF.:  
MAIN: A61K009-00  
US PATENT CLASSIF.: 424400000  
CLASSIFICATION: 63-6 (Pharmaceuticals)  
FAMILY ACC. NUM. COUNT: 12  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003077297	A1	20030424	US 2002-74687	20020211
US 6294192	B1	20010925	US 1999-258654	19990226
US 6267985	B1	20010731	US 1999-345615	19990630
US 6248363	B1	20010619	US 1999-447690	19991123
US 2003064097	A1	20030403	US 2001-800593	20010306
US 6569463	B2	20030527		
US 2002032171	A1	20020314	US 2001-877541	20010608

Poly(N-vinyl caprolactam) 25322-68-3, Polyethylene glycol  
 25812-30-0, Gemfibrozil 30299-08-2, Clinofibrate  
 31637-97-5, Etofibrate 31694-55-0 31980-29-7,  
 Nicofibrate 35189-28-7, Norgestimate 39386-78-2,  
 Tamarind gum 41859-67-0, Bezafibrate 42017-89-0,  
 Fenofibric acid 42408-82-2, Butorphanol 42597-57-9,  
 Ronifibrate 49562-28-9, Fenofibrate 52214-84-3,  
 Ciprofibrate 53694-15-8, Polyoxyethylene sorbitol  
 54024-22-5, Desogestrel 54048-10-1, 3-Ketodesogestrel  
 55285-45-5, Pirifibrate 55937-99-0, Beclobrate  
 60282-87-3, Gestodene 61748-93-4 61931-73-5, Ethoxylated  
 glucose 68693-11-8, Modafinil 69047-39-8, Binifibrate  
 73963-72-1, Cilostazol 76547-98-3, Lisinopril  
 82626-48-0, Zolpidem 91161-71-6, Terbinafine 95233-18-4,  
 Atovaquone 99614-02-5, Ondansetron 103062-96-0  
 107753-78-6, Zafirlukast 144034-80-0, Rizatriptan  
 151319-34-5, Zaleplon 159989-64-7, Nelfinavir  
 161814-49-9, Amprenavir 162011-90-7, Rofecoxib  
 163222-33-1, Ezetimibe 169590-42-5, Celecoxib  
 ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)

(pharmaceutical formulations and systems for improved  
 absorption and multistage release of active agents)

L12 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:391498 HCAPLUS

DOCUMENT NUMBER: 136:391005

ENTRY DATE: Entered STN: 24 May 2002

TITLE: Pharmaceutical compositions and dosage forms for  
 administration of hydrophobic drugs

INVENTOR(S): Chen, Feng-Jing; Patel, Mahesh V.

PATENT ASSIGNEE(S): Lipocine, Inc., USA

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

INT. PATENT CLASSIF.:

MAIN: A61K009-48

SECONDARY: A61K009-00; A61K047-22; A61K031-215

CLASSIFICATION: 63-6 (Pharmaceuticals)

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002039983	A2	20020523	WO 2001-US43584	20011116
WO 2002039983	A3	20021010		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002016701	A5	20020527	AU 2002-16701	20011116
PRIORITY APPLN. INFO.:			US 2000-716029	A 20001117
			WO 2001-US43584	W 20011116

citrate 102-76-1, Triacetin 111-90-0, Transcutol  
127-19-5, Dimethylacetamide 502-44-3,  $\epsilon$ -  
Caprolactone 542-28-9,  $\delta$ -Valerolactone 872-50-4,  
N-Methyl-2-pyrrolidone, biological studies 1406-18-4,  
Vitamin e 2687-91-4, N-Ethyl-2-pyrrolidone 3068-88-0,  
 $\beta$ -Butyrolactone 4345-03-3,  $\alpha$ -Tocopheryl acid  
succinate 9002-96-4,  $\alpha$ -Tocopherol polyethylene  
glycol succinate 31565-12-5, Capryol 90 31692-85-0,  
Glycofurol 37348-65-5, Maisine 35I 77466-09-2, Miglyol  
840

ROLE: MOA (Modifier or additive use); PEP (Physical,  
engineering or chemical process); PRP (Properties); PYP  
(Physical process); THU (Therapeutic use); BIOL (Biological  
study); PROC (Process); USES (Uses)

## INDEX TERM:

(pharmaceutical compns. and dosage forms for  
administration of hydrophobic drugs)

6829-55-6D, Tocotrienol, derivs.

ROLE: MOA (Modifier or additive use); THU (Therapeutic use);  
BIOL (Biological study); USES (Uses)

(pharmaceutical compns. and dosage forms for  
administration of hydrophobic drugs)

## INDEX TERM:

49562-28-9, Fenofibrate

ROLE: PEP (Physical, engineering or chemical process); PRP  
(Properties); PYP (Physical process); THU (Therapeutic use);  
BIOL (Biological study); PROC (Process); USES (Uses)

(pharmaceutical compns. and dosage forms for  
administration of hydrophobic drugs)

L12 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:185694 HCAPLUS

DOCUMENT NUMBER: 136:252483

ENTRY DATE: Entered STN: 15 Mar 2002

TITLE: Clear oil-containing pharmaceutical compositions  
containing a therapeutic agent

INVENTOR(S): Chen, Feng-Jing; Patel, Mahesh V.;  
Fikstad, David T.

PATENT ASSIGNEE(S): Lipocine, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 45 pp., Cont.-in-part of U.S.  
Ser. No. 751,968.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

INT. PATENT CLASSIF.:

MAIN: A61K031-715

SECONDARY: A61K035-78

US PATENT CLASSIF.: 514054000

CLASSIFICATION: 63-6 (Pharmaceuticals)

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002032171	A1	20020314	US 2001-877541	20010608
US 6761903	B2	20040713		
US 6267985	B1	20010731	US 1999-345615	19990630
US 6309663	B1	20011030	US 1999-375636	19990817
US 2001024658	A1	20010927	US 2000-751968	20001229
US 6458383	B2	20021001		
US 2003077297	A1	20030424	US 2002-74687	20020211

- (46) Lecluyse; Advanced Drug Delivery Reviews 1997, V23, P163 HCAPLUS  
(47) Liedtke; US 5120710 A 1992 HCAPLUS  
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(49) Longenecker; US 4994439 A 1991 HCAPLUS  
(50) Macgregor; Advanced Drug Delivery Reviews 1997, V25, P33 HCAPLUS  
(51) Modi; US 5653987 A 1997 HCAPLUS  
(52) Morton; US 5376688 A 1994 HCAPLUS  
(53) Muller; US 4719239 A 1988 HCAPLUS  
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(56) Narayanan; US 5300529 A 1994 HCAPLUS  
(57) New; US 5853748 A 1998 HCAPLUS  
(58) Nyqvist; US 5626869 A 1997 HCAPLUS  
(59) Owen; US 5444041 A 1995 HCAPLUS  
(60) Owen; US 5633226 A 1997 HCAPLUS  
(61) Owen; US 5646109 A 1997 HCAPLUS  
(62) Owen; US 5688761 A 1997 HCAPLUS  
(63) Patel; US 6309663 B1 2001 HCAPLUS  
(64) Pittrof; US 5747066 A 1998 HCAPLUS  
(65) Pouton; Advanced Drug Delivery Reviews 1997, V25, P47 HCAPLUS  
(66) Reymond; Pharmaceutical Research V5(10), P673 HCAPLUS  
(67) Sache; US 4239754 A 1980 HCAPLUS  
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(70) Sezaki; US 4156719 A 1979 HCAPLUS  
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(72) Story; US 4944949 A 1990 HCAPLUS  
(73) Story; US 5532002 A 1996 HCAPLUS  
(74) Takada; US 5350741 A 1994 HCAPLUS  
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(76) Tarr; Pharmaceutical Research 1989, V6(1), P40 HCAPLUS  
(77) Teng; US 4654327 A 1987 HCAPLUS  
(78) Vranckx; US 5500224 A 1996 HCAPLUS  
(79) Walch; US 5614491 A 1997 HCAPLUS  
(80) Wilson; Bulletin Technique Gattefoss 1997, V90, P13 HCAPLUS  
(81) Winne; Archives of Pharmacology 1978, V304, P175 HCAPLUS  
(82) Woo; US 5589455 A 1996 HCAPLUS  
(83) Woo; US 5639474 A 1997 HCAPLUS  
(84) Wretlind; US 5244925 A 1993 HCAPLUS  
(85) Yesair; US 5741822 A 1998 HCAPLUS  
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(88) Zhi; Clinical Pharmacology and Therapeutics 1995, V58(5), P487 HCAPLUS

L12 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:816432 HCAPLUS

DOCUMENT NUMBER: 135:362564

ENTRY DATE: Entered STN: 09 Nov 2001

TITLE: Enteric coated formulation of bisphosphonic acids

INVENTOR(S): Chen, Feng-Jing; Patel, Mahesh V.

PATENT ASSIGNEE(S): Lipocine, Inc., USA

SOURCE: PCT Int. Appl., 52 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 INT. PATENT CLASSIF.:  
 MAIN: A61K009-28  
 SECONDARY: A61K009-36; A61K009-48  
 CLASSIFICATION: 63-6 (Pharmaceuticals)  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001082903	A1	20011108	WO 2001-US13577	20010427
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6468559	B1	20021022	US 2000-561489	20000428
PRIORITY APPLN. INFO.:			US 2000-561489	A 20000428
PATENT CLASSIFICATION CODES:				

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001082903	ICM	A61K009-28
	ICS	A61K009-36; A61K009-48
US 6468559	ECLA	A61K009/48Z
OTHER SOURCE(S):		MARPAT 135:362564

## ABSTRACT:

Oral dosage forms are provided for the administration of a bisphosphonic acid compound in the prevention and treatment of conditions involving calcium or phosphate metabolism, i.e., conditions associated with bone resorption such as osteoporosis, Paget's disease, periprosthetic bone loss, osteolysis, malignant hypercalcemia, metastatic bone disease, multiple myeloma, and periodontal disease. The dosage forms are either enterically coated capsules housing the drug in a liquid or semi-solid carrier, or enterically coated osmotically activated drug delivery devices. Thus, a formulation contained Alendronate 10, Cremophor-RH40 250, Labrasol 100, Capmul MCM 150, Eudragit L-100 18, triacetin 1.5, and talc 1.5 mg/capsule.

SUPPL. TERM: enteric coated bisphosphonic acid  
 INDEX TERM: Glycerides, biological studies  
 ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (C8-10, ethoxylated; enteric coated formulation of bisphosphonic acids)  
 INDEX TERM: Glycerides, biological studies  
 ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (C8-10; enteric coated formulation of bisphosphonic acids)  
 INDEX TERM: Glycerides, biological studies  
 ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (C8-12; enteric coated formulation of bisphosphonic acids)



25518-54-1, Lauroyl carnitine 26402-26-6, Imwitor 308  
 27214-38-6, Nikkol MGM 27215-38-9, Imwitor 312  
 31692-85-0, Glycofurol 34406-66-1, Nikkol Decaglyn 1L  
 37220-82-9, Peceol 37321-62-3, Lauroglycol 37348-65-5,  
 Maisine 35I 39438-11-4, Sorbitan monocaprate 40391-99-9,  
 Pamidronic acid 42766-91-6, Nikkol DHC 51192-09-7,  
 Nikkol TMGO-5 52504-24-2, Softigen 767 53168-42-6,  
 Myvacet 9-45 58561-47-0, Softigen 701 60177-36-8,  
 Sorbitan monocaprylate 63132-39-8, Olpadronic acid  
 66376-36-1, Alendronic acid 68795-69-7, Propylene glycol  
 monocaprate 75755-07-6, Piridronic acid 79665-93-3,  
 Nikkol Decaglyn 10 79778-41-9, Neridronic acid  
 89987-06-4, Tiludronic acid 102051-00-3, Nikkol Decaglyn  
 30 105462-24-6, Risedronic acid 106392-12-5, Poloxamer  
 114084-78-5, Ibandronic acid 118072-93-8, Zoledronic acid  
 121548-04-7, Gelucire 44/14 124351-85-5, Cimadronic acid  
 127829-97-4, Solulan C 4 142368-40-9, Imwitor 375  
 148046-81-5, Gelucire 33/01 150372-93-3, Tagat L2  
 156259-68-6, Capmul MCM 165800-06-6, Zoledronic acid  
 hydrate 208666-87-9, Captex 810D 372118-91-7  
 372118-92-8 372513-76-3, Gelucire 50/15  
 ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)

(enteric coated formulation of bisphosphonic acids)  
 REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD.

REFERENCE(S): (1) Bechard; US 5431920 A 1995 HCAPLUS  
 (2) Wong; US 5413572 A 1995 HCAPLUS

L12 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:713823 HCAPLUS

DOCUMENT NUMBER: 135:262268

ENTRY DATE: Entered STN: 28 Sep 2001

TITLE: Pharmaceutical dosage form for oral administration of  
 hydrophilic drugs, particularly low molecular weight  
 heparin

INVENTOR(S): Chen, Feng-Jing; Patel, Mahesh V.;  
 Fikstad, David T.

PATENT ASSIGNEE(S): Lipocine, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S.  
 Ser. No. 375,636.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

INT. PATENT CLASSIF.:

MAIN: A61K031-727

SECONDARY: A61K009-48

US PATENT CLASSIF.: 424452000

CLASSIFICATION: 63-6 (Pharmaceuticals)

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001024658	A1	20010927	US 2000-751968	20001229
US 6458383	B2	20021001		
US 6309663	B1	20011030	US 1999-375636	19990817
WO 2001012155	A1	20010222	WO 2000-US18807	20000710
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

## INDEX TERM:

50-70-4, Sorbitol, biological studies 56-81-5, Glycerol, biological studies 56-81-5D, Glycerol, fatty acid esters 57-55-6, Propylene glycol, biological studies 57-55-6D, Propylene glycol, fatty acid esters 64-17-5, Ethanol, biological studies 77-93-0, Triethylcitrate 79-10-7D, Acrylic acid, polymers 79-41-4D, Methacrylic acid, polymers 80-62-6D, Methyl methacrylate, polymers 81-24-3, Taurocholic acid 83-44-3, Deoxycholic acid 96-33-3D, Methyl acrylate, polymers 97-63-2D, Ethyl methacrylate., polymers 102-76-1, Triacetin 106-32-1, Ethyl caprylate 111-62-6, Ethyl oleate 111-90-0, Diethylene glycol Monoethyl ether 127-19-5, Dimethylacetamide 128-13-2, Ursodeoxycholic acid 140-88-5D, Ethyl acrylate, polymers 143-19-1, Oleic acid, sodium salt 145-42-6, Taurocholic acid, sodium salt 360-65-6, Glycodeoxycholic acid 434-13-9, Lithocholic acid 474-25-9, Chenodeoxycholic acid 475-31-0, Glycocholic acid 516-35-8, Taurochenodeoxycholic acid 516-50-7, Taurodeoxycholic acid 640-79-9, Glycochenodeoxycholic acid 872-50-4, N-Methylpyrrolidone, biological studies 1398-61-4, Chitin 2898-95-5, Ursodeoxycholic acid, sodium salt 3416-24-8, Glucosamine 3445-11-2 5306-85-4, Dimethyl isosorbide 6009-98-9, Taurochenodeoxycholic acid, sodium salt 7732-18-5, Water, biological studies 9003-20-7, Polyvinyl acetate 9003-39-8, Polyvinyl pyrrolidone 9004-32-4 9004-35-7, Cellulose acetate 9004-38-0, Cellulose acetate phthalate 9004-54-0, Dextran, biological studies 9004-57-3, Ethyl cellulose 9004-61-9, Hyaluronic acid 9004-62-0, Hydroxyethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropyl methyl cellulose 9004-67-5, Methyl cellulose 9005-49-6, Heparin, biological studies 9007-27-6, Chondroitin 9014-63-5, Xylan 9046-38-2, Polygalacturonic acid 9050-30-0, Heparan sulfate. 9050-31-1, Hydroxypropylmethyl cellulose phthalate 12619-70-4D, Cyclodextrin, hydroxypropyl ethers 14605-22-2, Tauroursodeoxycholic acid 16325-47-6D, Ammonium methacrylate, polymers 24937-78-8, Ethylene-vinyl acetate copolymer 25322-68-3, Polyethylene glycol 25609-89-6, Vinylacetate crotonic acid copolymer 29894-36-8, Polymannuronic acid 31692-85-0, Glycofurol 42907-92-6 42907-93-7 52907-01-4, Cellulose acetate trimellitate 53237-50-6 64480-66-6, Glycoursodeoxycholic acid 70226-44-7, heparan, 75634-40-1, Dermatan 93792-59-7, Hydroxypropylmethyl cellulose succinate 165048-60-2 679809-58-6, Enoxaparin sodium

ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(pharmaceutical dosage form for oral administration of hydrophilic drugs, particularly low mol. weight heparin)

L12 ANSWER 12 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:396644 HCAPLUS

DOCUMENT NUMBER: 135:24671

ENTRY DATE: Entered STN: 01 Jun 2001

TITLE: Solid carriers for improved delivery of active ingredients in pharmaceutical compositions

INVENTOR(S): Patel, Manesh V.; Chen, Feng-jing

PATENT ASSIGNEE(S): Lipocine, Inc., USA

PCT Int. Appl., 107 pp.  
 CODEN: PIXXD2  
 Patent  
 English  
 DOCUMENT TYPE:  
 LANGUAGE:  
 INT. PATENT CLASSIF.:  
     MAIN: A61K009-14  
     SECONDARY: A61K009-16; A61K009-20; A61K009-46; A61K009-48;  
                 A61K009-50; A61K009-54  
 CLASSIFICATION: 63-6 (Pharmaceuticals)  
 FAMILY ACC. NUM. COUNT: 12  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001037808	A1	20010531	WO 2000-US32255	20001122
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6248363	B1	20010619	US 1999-447690	19991123
CA 2391923	AA	20010531	CA 2000-2391923	20001122
EP 1233756	A1	20020828	EP 2000-980761	20001122
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2003517470	T2	20030527	JP 2001-539423	20001122
PRIORITY APPLN. INFO.:			US 1999-447690	A 19991123
			WO 2000-US32255	W 20001122

## PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001037808	ICM	A61K009-14
	ICS	A61K009-16; A61K009-20; A61K009-46; A61K009-48; A61K009-50; A61K009-54
US 6248363	ECLA	A61K009/16K2; A61K009/50K2

## ABSTRACT:

The present invention provides solid pharmaceutical compns. for improved delivery of a wide variety of pharmaceutical active ingredients contained therein or sep. administered. In one embodiment, the solid pharmaceutical composition includes a solid carrier, the solid carrier including a substrate and an encapsulation coat on the substrate. The encapsulation coat can include different combinations of pharmaceutical active ingredients, hydrophilic surfactant, lipophilic surfactants and triglycerides. In another embodiment, the solid pharmaceutical composition includes a solid carrier, the solid carrier being formed of different combinations of pharmaceutical active ingredients, hydrophilic surfactants, lipophilic surfactants and triglycerides. The compns. of the present invention can be used for improved delivery of hydrophilic or hydrophobic pharmaceutical active ingredients, such as drugs, nutritionals, cosmeceuticals and diagnostic agents. A composition contained glyburide 1, PEG 40 stearate 33, glycerol monolaurate 17, and nonpareil seed 80 g.

SUPPL. TERM: solid pharmaceutical  
 INDEX TERM: Drug delivery systems  
 (capsules; solid carriers for improved delivery of active ingredients in pharmaceutical compns.)

139264-17-8, Zolmitriptan 139481-59-7, Candesartan  
 139639-23-9, Tissue type plasminogen activator  
 142128-59-4, Terzolin 143003-46-7, Alglucerase  
 143011-72-7, Granulocyte colony stimulating factor  
 143831-71-4 144034-80-0, Rizatriptan 144494-65-5,  
 Tirofiban 144701-48-4, Telmisartan 145599-86-6,  
 Cerivastatin 145941-26-0, Oprelvekin 146961-76-4,  
 Alatrofloxacin 147059-72-1, Trovafloxacin 148553-50-8,  
 Pregabalin 151126-32-8, Pramlintide 153559-49-0,  
 Targretin 154361-50-9, Capecitabine 154598-52-4,  
 Efavirenz 155213-67-5, Ritonavir 157810-81-6, Indinavir  
 sulfate 158747-02-5, Frovatriptan 158966-92-8,  
 Montelukast 159989-64-7, Nelfinavir 160337-95-1, Insulin  
 glargine 162011-90-7, Rofecoxib 165101-51-9, Becaplermin  
 169148-63-4, Insulin detemir 169590-42-5, Celecoxib  
 171599-83-0, Sildenafil citrate 173146-27-5, Denileukin  
 diftitox 191588-94-0, TNK-TPA  
 ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)

(solid carriers for improved delivery of active  
 ingredients in pharmaceutical compns.)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD.

REFERENCE(S): (1) Cho; US 4849227 A 1989 HCAPLUS  
 (2) Desieno; US 5573783 A 1996 HCAPLUS  
 (3) Harrison; US 4717569 A 1988 HCAPLUS  
 (4) Stetsko; US 5340589 A 1994 HCAPLUS

L12 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:300514 HCAPLUS

DOCUMENT NUMBER: 134:331617

ENTRY DATE: Entered STN: 27 Apr 2001

TITLE: Oil-in-water emulsion compositions for polyfunctional  
 active ingredients

INVENTOR(S): Chen, Feng-jing; Patel, Mahesh V.

PATENT ASSIGNEE(S): Lipocine, Inc., USA

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

INT. PATENT CLASSIF.:

MAIN: A61K031-355

SECONDARY: A61K031-20

CLASSIFICATION: 63-6 (Pharmaceuticals)

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028555	A1	20010426	WO 2000-US28835	20001018
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

01/24/2005

Royds PCT/US04/36.

01/24/2005

(α; oil-in-water emulsion compns. for  
polyfunctional active ingredients)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS  
RECORD.

REFERENCE(S): (1) Bistran; US 4871768 A 1989 HCAPLUS  
(2) Demichele; US 5661180 A 1997 HCAPLUS  
(3) Demichele; US 6013665 A 2000 HCAPLUS  
(4) Demichele; US 6130244 A 2000 HCAPLUS  
(5) Demichele; US 6160007 A 2000 HCAPLUS  
(6) Jandacek; US 4753963 A 1988 HCAPLUS

L12 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2001:185526 HCAPLUS  
DOCUMENT NUMBER: 134:242643  
ENTRY DATE: Entered STN: 16 Mar 2001  
TITLE: Using quaternary ammonium salts for transdermal drug  
delivery  
INVENTOR(S): Fikstad, David; Ebert, Charles D.;  
Venkateshwaran, Srinivasan; Nilssen, Lawrence  
R.  
PATENT ASSIGNEE(S): Watson Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 65 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
INT. PATENT CLASSIF.:  
MAIN: A61F013-00  
CLASSIFICATION: 63-6 (Pharmaceuticals)  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001017472	A1	20010315	WO 2000-US24690	20000908
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2384679	AA	20010315	CA 2000-2384679	20000908
EP 1217975	A1	20020703	EP 2000-961691	20000908
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003532629	T2	20031105	JP 2001-521266	20000908
AU 773778	B2	20040603	AU 2000-73611	20000908
US 2003091620	A1	20030515	US 2002-105032	20020321
PRIORITY APPLN: INFO.:				
US 1999-153001P P 19990908				
US 1999-153008P P 19990908				
US 1999-153015P P 19990908				
US 2000-657080 A 20000907				
WO 2000-US24690 W 20000908				

## PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001017472	ICM	A61F013-00

01/24

monoethanolamide 143-07-17, Lauric acid, biological studies  
 616-45-5D, Pyrrolidone, alkyl derivs. 1338-39-2, Sorbitan  
 monolaurate 2425-77-6, 2-Hexyl decanol 2687-96-9  
 5333-42-6, 2-Octyldodecanol 5767-84-0 7545-23-5,  
 Myristic diethanolamide 7726-08-1 10525-14-1  
 14440-80-3 23054-61-7 32582-32-4, 2-Tetradecyloctadecan-  
 1-ol 35627-96-4 45235-48-1, 2-Octyldecanol 48075-52-1  
 58670-89-6, 2-Decyltetradecanol 92353-15-6, Hexyl  
 dodecanol 116709-79-6 158752-39-7 206876-97-3  
 ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)

(transdermal compns. having improved penetration and  
 decreased skin irritation containing drugs and carriers and  
 quaternary ammonium salts and penetration co-enhancers)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD.

REFERENCE(S): (1) Lezdey; US 5346886 A 1994 HCAPLUS  
 (2) Sipos; US 4006218 A 1977 HCAPLUS

L12 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:136991 HCAPLUS

DOCUMENT NUMBER: 134:198075

ENTRY DATE: Entered STN: 25 Feb 2001

TITLE: Triglyceride-free compositions and methods for  
 enhanced absorption of hydrophilic therapeutic agents

INVENTOR(S): Patel, Mahesh V.; Chen, Feng-Jing

PATENT ASSIGNEE(S): Lipocine, Inc., USA

SOURCE: PCT Int. Appl., 113 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

INT. PATENT CLASSIF.:  
 MAIN: A61K009-00

SECONDARY: A61K009-14; A61K009-16; A61K009-20; A61K009-22;  
 A61K009-28; A61K009-48

CLASSIFICATION: 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 1

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001012155	A1	20010222	WO 2000-US18807	20000710
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6309663	B1	20011030	US 1999-375636	19990817
CA 2380642	AA	20010222	CA 2000-2380642	20000710
EP 1210063	A1	20020605	EP 2000-947184	20000710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003506476	T2	20030218	JP 2001-516502	20000710
NZ 517659	A	20041224	NZ 2000-517659	20000710

stimulating factor 146961-76-4, Alatrofloxacin  
147059-72-1, Trovafloxacin 148046-81-5, Gelucire 33/01  
148553-50-8, Pregabalin 150372-93-3, Glycerox L  
151126-32-8, Pramlintide 154361-50-9, Capecitabine  
156259-68-6, Capmul MCM 157810-81-6, Indinavir sulfate  
160337-95-1, Insulin glargine 169148-63-4, Insulin detemir  
173146-27-5, Denileukin diftitox 191588-94-0, TNK-tPA  
679809-58-6, Enoxaparin sodium

ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)

(compns. for enhanced absorption of hydrophilic drugs  
using combination of surfactants)

## INDEX TERM:

9001-92-7, Proteinase

ROLE: BSU (Biological study, unclassified); BIOL (Biological  
study)

(inhibitors; compns. for enhanced absorption of  
hydrophilic drugs using combination of surfactants)

## INDEX TERM:

9003-98-9, Dornase 11096-26-7, Epoetin

ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)

( $\alpha$ ; compns. for enhanced absorption of hydrophilic  
drugs using combination of surfactants)

## REFERENCE COUNT:

1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS  
RECORD.

## REFERENCE(S):

(1) Cho; US 5858398 A 1999 HCAPLUS

L12 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:31306 HCAPLUS

DOCUMENT NUMBER: 134:105846

ENTRY DATE: Entered STN: 12 Jan 2001

TITLE: Clear aqueous dispersions of triglycerides and  
surfactants for delivery of drugs and nutrients

INVENTOR(S): Chen, Feng-Jing; Patel, Mahesh V.

PATENT ASSIGNEE(S): Lipocine, Inc., USA

SOURCE: PCT Int. Appl., 103 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

INT. PATENT CLASSIF.:

MAIN: A61K009-08

SECONDARY: A61K009-10; A61K009-12; A61K009-14; A61K009-16;  
A61K009-20; A61K009-28; A61K009-48; A61K009-66

CLASSIFICATION: 63-6 (Pharmaceuticals)

Section cross-reference(s): 18

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001001960	A1	20010111	WO 2000-US15133	20000602
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

85 9007-48-1, Polyglyceryl oleate 9009-32-9,  
Polyglyceryl stearate 9011-29-4 9016-45-9 9041-08-1,  
Heparin sodium 9050-36-6, Maltodextrin 9062-73-1,  
Polyethylene glycol sorbitan laurate 9062-90-2,  
Polyethylene glycol sorbitan oleate 11140-04-8, Imwitor  
988 12619-70-4, Cyclodextrin 12619-70-4D, Cyclodextrin,  
propanediol and sulfobutyl ethers 13081-97-5,  
Pentaerythrityl distearate 13552-80-2, Glyceryl  
triundecanoate 13784-61-7, Pentaerythritol tetracaprate  
14440-80-3, Stearoyl-2-lactylate 14465-68-0, Glyceryl  
trilinolenate 14605-22-2, Tauroursodeoxycholic acid  
19321-40-5, Pentaerythrityl tetraoleate 22882-95-7,  
Isopropyl linoleate 25168-73-4, Sucrose monostearate  
25265-75-2, Butanediol 25322-68-3D, Polyethylene glycol,  
esters 25322-69-4, Polypropylene glycol 25339-99-5,  
Sucrose monolaurate 25496-72-4, Glyceryl monooleate  
25618-55-7D, Polyglycerol, esters with fatty acids  
25637-84-7, Glyceryl dioleate 25637-97-2, Sucrose  
dipalmitate 26264-14-2D, Propanediol, ethers with  
cyclodextrin 26266-57-9, Sorbitan monopalmitate  
26266-58-0, Sorbitan trioleate 26402-22-2, Glyceryl  
monocaprate 26402-26-6, Glyceryl monocaprylate  
26446-38-8, Sucrose monopalmitate 26658-19-5, Sorbitan  
tristearate 27154-43-4D, Piperidone, N-alkyl derivs.  
27195-16-0, Sucrose distearate 27215-38-9, Glyceryl  
monolaurate 27321-96-6, Polyethylene glycol cholesterol  
27638-00-2, Glyceryl dilaurate 29874-09-7, Myristoyl  
carnitine 31692-85-0, Glycofurol 31694-55-0D,  
Polyoxyethylene glycerol, esters with fatty acids  
33069-62-4, Paclitaxel 36354-80-0, Glyceryl dicaprylate  
37220-82-9, Peceol 37321-62-3, Propylene glycol laurate  
37348-65-5, Linoleic acid glyceride 42924-53-8, Nabumetone  
49562-28-9, Fenofibrate 51192-09-7 51852-65-4  
51938-44-4, Sorbitan sesquisteate 53988-07-1, Glyceryl  
dicaprate 54392-26-6, Sorbitan monoisostearate  
59865-13-3, Cyclosporin A 62125-22-8, Pentaerythritol  
tetraisostearate 64480-66-6, Glycoursodeoxycholic acid  
68958-64-5, Polyethylene glycol glyceryl trioleate  
69070-98-0 76009-37-5 77944-79-7, Softisan 378  
79665-94-4 83138-62-9, Polyglyceryl isostearate  
91161-71-6, Terbinafine 93790-70-6, Cholylsarcosine  
93790-72-8 94423-19-5 102051-00-3 106392-12-5,  
Polyoxyethylene-polyoxypropylene block copolymer  
110540-43-7 129318-43-0, Alendronate sodium 150372-93-3,  
Polyethylene glycol glycerol laurate 162011-90-7,  
Rofecoxib 301524-91-4, Captex 810  
ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)

(clear aqueous dispersions of triglyceride and surfactants  
for delivery of drugs and nutrients)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
RECORD.

REFERENCE(S): (1) Stone; US 5817320 A 1998 HCAPLUS  
(2) Takahashi; US 5948825 A 1999 HCAPLUS

L12 ANSWER 17 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2000:725436 HCAPLUS  
DOCUMENT NUMBER: 133:301171  
ENTRY DATE: Entered STN: 13 Oct 2000



TITLE: Compositions and methods for improved delivery of ionizable hydrophobic therapeutic agents

INVENTOR(S): Chen, Feng-jing; Patel, Manesh V.

PATENT ASSIGNEE(S): Lipocine, Inc., USA

SOURCE: PCT Int. Appl., 99 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

INT. PATENT CLASSIF.:  
MAIN: A61K009-14  
SECONDARY: A61K009-48; A61K009-64; A61K009-66; A01N025-00.  
CLASSIFICATION: 63-6 (Pharmaceuticals)

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000059475	A1	20001012	WO 2000-US7342	20000316
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6383471	B1	20020507	US 1999-287043	19990406
CA 2366702	AA	20001012	CA 2000-2366702	20000316
EP 1165048	A1	20020102	EP 2000-916547	20000316
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRIORITY APPLN. INFO.:			US 1999-287043	A 19990406
			WO 2000-US7342	W 20000316

## PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000059475	ICM	A61K009-14
	ICS	A61K009-48; A61K009-64; A61K009-66; A01N025-00
US 6383471	ECLA	A61K009/107D; A61K047/02

## ABSTRACT:

The present invention is directed to a pharmaceutical composition including a hydrophobic therapeutic agent having at least one ionizable functional group, and a carrier. The carrier includes an ionizing agent capable of ionizing the functional group, a surfactant, and optionally solubilizers, triglycerides, and neutralizing agents. The invention further relates to a method of preparing such compns. by providing a composition of an ionizable hydrophobic therapeutic agent, an ionizing agent, and a surfactant, and neutralizing a portion of the ionizing agent with a neutralizing agent. The compns. of the invention are particularly suitable for use in oral dosage forms. A carrier containing concentrated phosphoric acid

0.025, Tween-20 0.3, Arlacel 186 0.2, sodium taurocholate 0.15, propylene glycol 0.3 g was formulated. Itraconazole was included in the carrier at 30 mg/mL for testing the stability of the itraconazole solution upon dilution in simulated gastric fluid.

SUPPL. TERM: hydrophobic drug carrier base surfactant triglyceride

INDEX TERM: Diglycerides  
Diglycerides

01/24/200

(Uses)

(solubilizer; pharmaceutical compns. containing hydrophobic therapeutic agents and carriers containing ionizing agents and surfactants and triglycerides)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD.

REFERENCE(S): (1) Blair; US 4306981 A 1981 HCAPLUS  
(2) Hauer; US 5342625 A 1994 HCAPLUS  
(3) Story; US 4944949 A 1990 HCAPLUS

L12 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2000:608551 HCAPLUS

DOCUMENT NUMBER: 133:213151

ENTRY DATE: Entered STN: 01 Sep 2000

TITLE: Pharmaceutical compositions and methods for improved delivery of hydrophobic therapeutic agents

INVENTOR(S): Patel, Manesh V.; Chen, Feng-Jing

PATENT ASSIGNEE(S): Lipocine, Inc., USA

SOURCE: PCT Int. Appl., 98 pp.

DOCUMENT TYPE: CODEN: PIXXD2

LANGUAGE: Patent

INT. PATENT CLASSIF.: English

MAIN: A61K009-127

SECONDARY: A61K009-107; A61K038-13

CLASSIFICATION: 63-6 (Pharmaceuticals)

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050007	A1	20000831	WO 2000-US165	20000105
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6294192	B1	20010925	US 1999-258654	19990226
CA 2365536	AA	20000831	CA 2000-2365536	20000105
AU 2000022242	A5	20000914	AU 2000-22242	20000105
AU 771659	B2	20040401		
EP 1158959	A1	20011205	EP 2000-901394	20000105
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002537317	T2	20021105	JP 2000-600619	20000105
NZ 513810	A	20040227	NZ 2000-513810	20000105
PRIORITY APPLN. INFO.:			US 1999-258654	A 19990226
			WO 2000-US165	W 20000105

PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000050007	ICM	A61K009-127
US 6294192	ICS	A61K009-107; A61K038-13
	ECLA	A61K009/107D; A61K031/57+A; A61K038/13; A61K047/26; A61K047/44

01/24/2005

86386-73-4, Fluconazole 86541-75-5, Benazepril  
 86637-84-5, 88150-42-9, Amlodipine 89778-26-7, Toremfene  
 90357-06-5, Bicalutamide 91161-71-6, Terbinafine  
 93390-81-9, Fosphenytoin 93413-69-5, Venlafaxine  
 93479-97-1, Glimepiride 93790-70-6, Cholylsarcosine  
 93790-72-8, 93957-54-1, Fluvastatin 95233-18-4,  
 Atovaquone 97240-79-4, Topiramate 97322-87-7,  
 Troglitazone 97682-44-5, Irinotecan 98319-26-7,  
 Finasteride 101828-21-1, Butenafine 103577-45-3,  
 Lansoprazole 103628-46-2, Sumatriptan 104987-11-3,  
 Tacrolimus 106133-20-4, Tamsulosin 106392-12-5, Ethylene  
 oxide propylene oxide block copolymer 106650-56-0,  
 Sibutramine 107753-78-6, Zafirlukast 111025-46-8,  
 Pioglitazone 111406-87-2, Zileuton 112965-21-6,  
 Calcipotriene 113665-84-2, Clopidogrel 115103-54-3,  
 Tiagabine 117976-89-3, Rabeprazole 118292-40-3,  
 Tazarotene 120014-06-4, Donepezil 121679-13-8,  
 Naratriptan 122320-73-4, Rosiglitazone 123948-87-8,  
 Topotecan 127779-20-8, Saquinavir 129497-78-5,  
 Verteporfin 131918-61-1, Paricalcitol 133040-01-4,  
 Eprosartan 134523-00-5, Atorvastatin 135062-02-1,  
 Repaglinide 137862-53-4, Valsartan 138402-11-6  
 139264-17-8, Zolmitriptan 139481-59-7, Candesartan  
 144034-80-0, Rizatriptan 144494-65-5, Tirofiban  
 144701-48-4, Telmisartan 145599-86-6, Cerivastatin  
 145941-26-0, Oprelvekin 147059-72-1, Trovafloxacin  
 150372-93-3, Polyoxyethylene glyceryl laurate 153559-49-0,  
 Targretin 154598-52-4, Efavirenz 155213-67-5, Ritonavir  
 156259-68-6, Capmul mcm 158747-02-5, Frovatriptan  
 158966-92-8, Montelukast 159989-64-7, Nelfinavir  
 162011-90-7, Rofecoxib 169590-42-5, Celecoxib  
 171599-83-0, Sildenafil citrate  
 ROLE: THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)

(pharmaceutical compns. and methods for improved delivery  
 of hydrophobic therapeutic agents)

REFERENCE COUNT:

4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD.

REFERENCE(S):

- (1) Crooks; US 4572915 A 1986 HCAPLUS
- (2) Muller; US 4719239 A 1988 HCAPLUS
- (3) Schmidt; US 4727109 A 1988 HCAPLUS
- (4) Story; US 4944949 A 1990 HCAPLUS

L12 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:290827 HCAPLUS

DOCUMENT NUMBER: 132:326061

ENTRY DATE: Entered STN: 05 May 2000

TITLE: Method of preparing pressure sensitive transdermal  
 adhesive matrix patches containing hydrophilic salts  
 of drugs

INVENTOR(S): Venkateshwaran, Srinivasan; Fikstad,  
 David; Ebert, Charles D.

PATENT ASSIGNEE(S): Theratech, Inc., USA

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

INT. PATENT CLASSIF.:

MAIN: A61K009-70

IFICATION: 63-6 (Pharmaceuticals)  
 ACC. NUM. COUNT: 2  
 NT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000024386	A1	20000504	WO 1999-US20814	19990908
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2343100	AA	20000504	CA 1999-2343100	19990908
EP 1117389	A1	20010725	EP 1999-945640	19990908
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003520191	T2	20030702	JP 2000-577996	19990908
AU 9958206	A1	20000515	AU 1999-58206	19990909
PRIORITY APPLN. INFO.:			US 1998-149523	A 19980908
			WO 1999-US20814	W 19990909

## PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000024386	ICM	A61K009-70
WO 2000024386	ECLA	A61K009/70E

## ABSTRACT:

A method of making a pressure sensitive matrix patch for transdermal delivery of a drug is disclosed. The method includes the steps of dissolving a hydrophilic salt form of the drug in the water phase of an aqueous dispersion of a hydrophobic pressure sensitive adhesive, casting the resulting mixture as a thin film, and evaporating the water. The phys. stability of the drug in the film is excellent, and crystallization of the drug is inhibited. A method of increasing the transdermal flux of an acidic drug is also disclosed. Transdermal patches with 10% ketorolac free acid were prepared by mixing ketorolac in propylene glycol with iso-Pr myristate and adding to Durotak-2852. After solvent evaporation, the resulting adhesive film was laminated to a release liner.

SUPPL. TERM: pressure sensitive adhesive matrix patch drug salt;  
 transdermal adhesive patch drug salt

INDEX TERM: Biological transport  
 (permeation; pressure sensitive transdermal adhesive  
 matrix patches containing hydrophilic salts of drugs)

INDEX TERM: Permeation enhancers  
 (pressure sensitive transdermal adhesive matrix patches  
 containing hydrophilic salts of drugs)

INDEX TERM: Acrylic polymers, biological studies  
 ROLE: DEV (Device component use); THU (Therapeutic use);  
 BIOL (Biological study); USES (Uses)  
 (pressure sensitive transdermal adhesive matrix patches  
 containing hydrophilic salts of drugs)

INDEX TERM: Adhesives  
 (pressure-sensitive; pressure sensitive transdermal  
 adhesive matrix patches containing hydrophilic salts of  
 drugs)

INDEX TERM: Drug delivery systems

01/24/2005

## INDEX TERM:

(transdermal; pressure sensitive transdermal adhesive matrix patches containing hydrophilic salts of drugs)  
 73-78-9, Lidocaine hydrochloride 81-81-2, Warfarin  
 129-06-6, Sodium warfarin 137-58-6, Lidocaine 4205-90-7,  
 Clonidine 4205-91-8, Clonidine hydrochloride 15307-79-6,  
 Diclofenac sodium 15307-86-5, Diclofenac 33386-08-2,  
 Buspirone hydrochloride 36505-84-7, Buspirone  
 74103-07-4, Ketorolac tromethamine  
 ROLE: BPR (Biological process); BSU (Biological study,  
 unclassified); DEV (Device component use); THU (Therapeutic  
 use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (pressure sensitive transdermal adhesive matrix patches  
 containing hydrophilic salts of drugs)

## INDEX TERM:

50-98-6, Ephedrine hydrochloride 51-42-3, Epinephrine  
 bitartrate 55-48-1, Atropine sulfate 59-97-2, Tolazoline  
 hydrochloride 61-12-1, Dibucaine hydrochloride 61-76-7,  
 Phenylephrine hydrochloride 64-75-5, Tetracycline  
 hydrochloride 69-52-3, Sodium ampicillin 113-92-8,  
 Chlorpheniramine maleate 114-49-8, Scopolamine  
 hydrobromide 125-69-9, Dextromethorphan hydrobromide  
 136-47-0, Tetracaine hydrochloride 154-41-6,  
 Phenylpropanolamine hydrochloride 318-98-9, Propranolol  
 hydrochloride 357-08-4, Naloxone hydrochloride 440-17-5,  
 Trifluoperazine hydrochloride 980-71-2, Brompheniramine  
 maleate 990-73-8, Fentanyl citrate 2016-88-8, Amiloride  
 hydrochloride 2058-46-0, OxyTetracycline hydrochloride  
 6283-92-7, Ceraphyl 31 9003-27-4, Polyisobutylene  
 15826-37-6, Sodium cromolyn 16676-29-2, Naltrexone  
 hydrochloride 18559-94-9, Albuterol 23031-32-5,  
 Terbutaline sulfate 23277-43-2, Nalbuphine hydrochloride  
 24937-78-8, EVA 25339-99-5 28813-39-0, Pindolol  
 hydrochloride 31677-93-7, Bupropion hydrochloride  
 34580-14-8, Ketotifen fumarate 49746-04-5, Thiothixene  
 hydrochloride 51022-70-9, Albuterol sulfate 54810-23-0  
 56392-17-7, Metoprolol tartrate 62868-63-7, Apomorphine  
 sulfate 69657-51-8, Sodium acyclovir 74103-06-3,  
 Ketorolac 98418-47-4, Metoprolol succinate 162731-15-9  
 ROLE: DEV (Device component use); THU (Therapeutic use);  
 BIOL (Biological study); USES (Uses)  
 (pressure sensitive transdermal adhesive matrix patches  
 containing hydrophilic salts of drugs)

## REFERENCE COUNT:

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD.

## REFERENCE(S):

- (1) James, N; US 5633009 A 1997 HCAPLUS
- (2) Judy, M; US 5589498 A 1996 HCAPLUS
- (3) Kishore, S; US 5310559 A 1994
- (4) Masaki, S; US 5368860 A 1994
- (5) Theratech; WO 9809591 A 1998 HCAPLUS
- (6) Virotext; WO 9955312 A 1999 HCAPLUS

L12 ANSWER 20 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1999:731748 HCAPLUS  
 DOCUMENT NUMBER: 131:342019

ENTRY DATE:

TITLE:

Entered STN: 17 Nov 1999

INVENTOR(S):

Pressure-sensitive adhesive matrix patches for  
 delivery of salts of pharmaceutical agents

PATENT ASSIGNEE(S):

Venkateshwaran, Srinivasan; Fikstad,  
 David; Ebert, Charles D.  
 Theratech, Inc., USA

Searched by Paul Schulwitz 571-272-2527

SOURCE: U.S., 10 pp.  
 DOCUMENT TYPE: CODEN: USXXAM  
 LANGUAGE: Patent  
 INT. PATENT CLASSIF.: English  
 MAIN: A61L015-16  
 US PATENT CLASSIF.: 424449000  
 CLASSIFICATION: 63-6 (Pharmaceuticals)  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

# BEST AVAILABLE COPY

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5985317	A	19991116	US 1996-706624	19960906
CA 2262693	AA	19980312	CA 1997-2262693	19970829
WO 9809591	A1	19980312	WO 1997-US15302	19970829
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT NZ 333866 A 20000825 NZ 1997-333866 19970829 JP 2000517343 T2 20001226 JP 1998-512764 19970829 US 6365178 B1 20020402 US 2001-764040 20010117 PRIORITY APPLN. INFO.: US 1996-706624 A 19960906 WO 1997-US15302 W 19970829 US 1998-149523 B1 19980908				

## PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5985317	ICM	A61L015-16
	NCL	424449000
US 5985317	ECLA	A61K009/70E
WO 9809591	ECLA	A61K009/70E
US 6365178	ECLA	A61K009/70E

## ABSTRACT:

A method of transdermally or transmucosally delivering a hydrophilic salt form of a drug with a water-based pressure sensitive hydrophobic adhesive matrix patch optionally containing a permeation enhancer is disclosed. A matrix patch comprising a water-based pressure sensitive hydrophobic adhesive, a hydrophilic salt form of a drug, and optionally a permeation enhancer for transdermal or transmucosal delivery of the hydrophilic salt form of the drug is also disclosed. Pressure sensitive adhesive matrix systems were prepared with buspirone-HCl at a concentration of 2 % and sucrose laurate at 5 % in a water-based acrylic adhesive, NACOR 72-9965.

SUPPL. TERM: transdermal patch hydrophobic adhesive drug salt; buspirone hydrochloride acrylic adhesive patch  
 INDEX TERM: Drug delivery systems  
 (mucosal; pressure-sensitive adhesive matrix patches for delivery of salts of drugs)  
 INDEX TERM: Drug bioavailability  
 (pressure-sensitive adhesive matrix patches for delivery of salts of drugs)  
 INDEX TERM: Isobutylene rubber  
 Natural rubber, biological studies  
 ROLE: THU (Therapeutic use); BIOL (Biological study); USES